

Name: _____ Group: _____

Factoring by Greatest Common Factor

Factor the greatest common factor out of the polynomial.

1. $8x^2 + 10x$

2. $12y - 16$

3. $-15d^5 + 45d^3$

4. $13a + 20b$

5. $c^3 + c^2 - c$

6. $6n^2 - 30n + 42$

7. $-7m^2 - 10m + 17$

8. $18p^3 - 63p^2 - 9p$

9. $18x^2 - 50y^2$

10. $100z^9 + 50z^6 - 75z^5$

11. $36rs^2 - 108r^2s^3$

12. $36k - 30$

13. $a^7b - a^{10}$

14. $2c^5d^4 - 3c^4 + 4c^3$

15. $3g^8 + 3g^7$

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Factoring by Greatest Common Factor

Factor the greatest common factor out of the polynomial.

1. $\frac{8x^2}{2x} + \frac{10x}{2x}$

$2x(4x+5)$

2. $12y-16$

$4(3y-4)$

3. $\frac{-15d^5}{15d^3} + \frac{45d^3}{15d^3}$

$15d^3(-d^2+3)$

4. $13a+20b$

$1(13a+20b)$

5. c^3+c^2-c

$c(c^2+c-1)$

6. $6n^2-30n+42$

$6(n^2-5n+7)$

7. $-7m^2-10m+17$

$1(-7m^2-10m+17)$

8. $\frac{18p^3}{2p^2} - \frac{63p^2}{2p^2} - \frac{9p}{9p}$

$9p(2p^2-7p-1)$

9. $18x^2-50y^2$

$2(9x^2-25y^2)$

10. $100z^9+50z^6-75z^5$

$25z^5(4z^4+2z-3)$

11. $36rs^2-108r^2s^3$

$36rs^2(1-3rs)$

12. $36k-30$

$6(6k-5)$

13. $\frac{a^7b-a^{10}}{a^7 a^7}$

$a^7(b-a^3)$

14. $\frac{2c^5d^4}{1c^3} - \frac{3c^4}{1c^3} + \frac{4c^3}{1c^3}$

$c^3(2cd^4-3c+4)$

15. $\frac{3g^8}{3g^7} + \frac{3g^7}{3g^7}$

$3g^7(g+1)$